

#### Access the Rest of the Interview Guide

### Real Estate & REIT Questions & Answers

We created this section of the interview guide because we kept getting questions on what to expect when interviewing with **specific industry groups**.

This chapter deals with real estate development and REITs, and the associated real estate industry groups at investment banks and PE firms. Many of these questions also apply to interviews at commercial real estate firms and REITs, and even real estate-related asset management firms.

Within real estate, we focus on property development and equity REITs since those are the most common topics in interviews.

#### A couple points:

- 1. This is **advanced material**. You should not expect to receive all these questions in entry-level interviews unless you have worked at a bank before.
- 2. You will **still get normal accounting, valuation, and modeling questions** even if you interview with specific industry groups so don't forget about those.
- 3. I've divided this into "High-Level Questions" good to know even for entry-level interviews and then advanced questions on specific topics like accounting, valuation, and modeling that are more appropriate for lateral interviews.



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### High-Level Questions & Answers

These are the most important questions to know for **entry-level interviews** with real estate groups.

Even if you know more than these topics, you should downplay your knowledge in interviews and set expectations low – otherwise you open yourself up to obscure technical questions.

#### 1. What are the major segments of the real estate industry?

You can divide real estate into **individual properties** and then **real estate investment trusts (REITs)** – companies that buy, sell, develop, and operate properties. They're like private equity firms, but for **buildings** rather than companies.

You can then divide properties by sector – industrial, offices, hotels, multifamily, retail, storage, and healthcare are a few examples.

REITs are divided into **equity REITs** (invest directly in properties), **mortgage REITs** (invest in mortgages and loans rather than properties themselves), and **hybrid REITs** (invest in both properties and loans).

You can divide REITs according to the property sectors above as well as the geographies they focus on.

#### 2. Why are you interested in real estate?

As with any "Why this industry?" question, a good answer is personal and filled with details specific to you – someone you met, an experience you had, or even a class or project you completed. But at a high-level, here are a few reasons you can use to support the anecdote(s) you provide:



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- Real estate is a **reliable asset class** that isn't going anywhere unlike a field like technology that's constantly changing, buildings will exist and produce income as long as humans live in them.
- Real estate affects your everyday life everyone lives in some form of real estate asset, and most people work in them as well. No other investments are like that.
- There are many ways to invest in real estate you can buy properties, develop properties, renovate properties, invest in REITs, mortgages, loans, and so on.
- **Accounting and valuation** differ significantly, which makes it more interesting than standard companies as you have to think about corporate structure and even basic concepts like Depreciation differently.

## 3. How do you model a property development, and how is it different from what you see for normal 3-statement models or LBO models?

Think "startup meets leveraged buyout" for property development. You start by constructing a building that initially generates no revenue, and then after you've finished constructing it, you assume that tenants move in and start paying rent.

It's different from normal 3-statement models because you start with no revenue and no expenses initially, and then scale them up over time; but it's also not a pure LBO model because you're using Debt and Equity to fund the **development** of a new asset rather than the purchase of an existing asset.

The key steps to modeling a property development:

- 1. Determine the **size** (square feet or square meters), **parameters**, and **Construction Timeline**.
- 2. Estimate the eventual **financial profile** revenue, expenses, and Net Operating Income (NOI).
- 3. Estimate the **development costs** for the building.
- 4. Create a **Sources & Uses** schedule and determine the amount of Debt and Equity to use.



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- 5. Construct the Income Statement down to Net Operating Income, and bring in revenue and expenses over time as tenants move in.
- 6. Distribute the development costs over the Construction Timeline, drawing on Equity and Debt as required.
- 7. Assume an exit price (based on the **Cap Rate** see below) and calculate the net sale proceeds and IRR. This part is similar to an LBO model.

#### 4. What are the key metrics you use to analyze and value a property?

The property **size** – lot size, gross area, and rentable area – is quite important, as are the revenue and expenses. Revenue consists of **rental income** and then miscellaneous sources such as parking income, food & beverages (for hotels), and so on. Expenses for properties are primarily **operating expenses** (energy, utilities, maintenance, repairs, and insurance) and **property taxes**.

But the 2 most important metrics for properties are Net Operating Income (NOI) and the Capitalization Rate (Cap Rate).

NOI = Revenue – Operating Expenses – Property Taxes, so it excludes Interest, Corporate-Level Taxes, and D&A, just like EBITDA for normal companies.

It approximates how much in cash earnings the property is generating each month or each year.

The **Cap Rate** equals the property's Net Operating Income divided by the Property Cost.

So, if the NOI is \$10 million and the building costs \$100 million, the Cap Rate is 10%.

Cap Rates are the **reciprocal** of valuation multiples and measure how much you earn in cash for each dollar you invest in the property.

A lower Cap Rate (e.g. 5%) means the property is expensive, and a higher Cap Rate (e.g. 10%) means that it's less expensive.



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In the UK and a few other countries, the term "Yield" is used instead of Cap Rate.

### 5. What is a real estate investment trust (REIT), and why would you invest in one?

A real estate investment trust (REIT) is a company that buys, sells, develops, and operates properties and/or real estate-related assets.

They're just like PE or VC firms, but for properties rather than companies.

They were created to give average people the ability to invest in property without having to come up with \$100 million to buy an entire building.

REITs pay **no corporate taxes** if they distribute 90% of their taxable income as dividends, earn 75% of their gross income from real estate, have 75% of their total assets related to real estate, and have more than 100 shareholders (they also can't have fewer than 5 investors that own over 50% of the company).

So you'd invest in a REIT if you want **reliable**, **dividend income** with the possibility of some stock price appreciation. The REIT itself saves on taxes, but you as the investor do not since you still pay taxes on those dividends.

REITs offer more stable revenue streams than other companies because tenants often sign long-term contracts and because people always need to rent apartments and offices – it's not like the technology industry where the latest fad might kill a company that was huge 2 years ago.

#### 6. What's the link between individual properties and REITs?

A REIT can grow its portfolio and expand in one of 5 ways:

- Raise rents on existing properties.
- Acquire new properties.



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- Develop new properties.
- Redevelop (renovate) existing properties.
- Sell properties they lose rental income but boost their cash flow.

So you can project a REIT's financial statements by looking at all of these options on an individual property level.

For example, you could model the REIT as acquiring \$500 million worth of new properties, assume a Cap Rate on those properties, and then reflect that \$500 million investment on the Cash Flow Statement and show the resulting revenue and expenses on the Income Statement.

A REIT's financial statements just represent the sum of all the properties in its portfolio, along with some added corporate overhead and other Assets and Liabilities such as cash and Debt.

# 7. How do a REIT's 3 financial statements differ from those of a normal company?

- There are **no corporate taxes** on the Income Statement because REITs are exempt if they pay out 90% of their taxable income as Dividends.
- Real estate comprises the majority of their Assets, and the Assets section
  of the Balance Sheet is divided into Real Estate Assets and Non-Real
  Estate Assets.
- They are constantly acquiring, developing, and disposing of properties, so those are major Cash Flow Statement items; you also see Discontinued Operations on the Income Statement.
- Because of their high capital requirements and the need to issue dividends constantly, REITs are always low on cash and need to issue Debt and Equity all the time to continue operating.

For a more detailed list, please see the REIT Accounting section of this guide.

#### 8. How do you value a REIT?



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You can still use public comps and precedent transactions, but you use different metrics and multiples – FFO and AFFO and P / FFO per Share and P / AFFO per Share instead (see next question).

A DCF also still works, but normally you use Levered FCF or a variant thereof; and a Dividend Discount Model (DDM) still applies since REITs must issue a predictable amount of dividends each year.

But the **Net Asset Value (NAV) Model** is more common than the DCF or DDM and uses the REIT's Balance Sheet and portfolio-wide Net Operating Income to value the firm.

You assign a Cap Rate to the REIT's 12-month forward NOI to determine the true value of their Real Estate Assets, then you adjust and add in all their other Assets, subtract their Liabilities, and divide by the share count to get NAV per Share. Then, you can compare that to the current share price and see if it represents a premium or discount.

You can also use the **Replacement Cost** method – you estimate how much it would cost to re-construct a REIT's entire portfolio – but that is more common at the property-level.

### 9. What are the most common operating metrics and valuation multiples for REITs?

The two most important operating metrics are **Funds from Operations (FFO)** and **Adjusted Funds from Operations (AFFO)**.

FFO = Net Income to Common + Real Estate-Related Depreciation & Amortization – Gain / (Loss) on Sale of Depreciable Real Estate

AFFO = FFO – Maintenance CapEx – Gain / (Loss) on Sale of Land + Other Non-Cash Charges



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Note that there is no standard definition for AFFO, but the most important adjustment is the subtraction of Maintenance CapEx. You will see many variations.

You use FFO because Depreciation is exceptionally high for REITs, but most property actually **appreciates** over time – so Depreciation creates a very misleading Net Income number. It's fine for normal companies since factories and equipment *do* wear down and need to be replaced over time, but it's not as applicable to properties.

And Gains and Losses are unpredictable and dependent on market conditions, so you adjust for them and assume that they don't contribute to a company's recurring earnings capacity.

AFFO gets you closer to how much in cash earnings the REIT is generating on an ongoing basis, because Maintenance CapEx is necessary to keep all their buildings in working order, and because Gains or Losses on land are also unpredictable.

Both FFO and AFFO are based on Net Income, so they are **Equity Value-based multiples**. You can use Equity Value / FFO and Equity Value / AFFO, or Price per Share / FFO per Share and Price per Share / AFFO per Share.

Those multiples are intended to improve upon the standard P / E multiple – they should not be compared to EV / EBITDA or Free Cash Flow-based multiples because they're measuring different things.

## 10. What are the most common REIT corporate structures and how do they affect operating models and valuation?

The 3 main structures are **Traditional**, **UPREIT** (Umbrella Partnership REIT), and **DownREIT**.

Traditional is easy: the REIT owns all existing Assets when the company is formed and all future Assets as well when they get acquired or developed. But,



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any contributing property owners must pay taxes immediately when transferring property to the REIT.

With an UPREIT structure, the property owners contribute property but get Operating Partnership Units (OP Units) that represent ownership in the REIT rather than cash, so they don't get taxed immediately. The disadvantage is that the REIT management may also own OP Units, which can create conflicts of interest (e.g. one group wants to agree to an acquisition but the other does not).

A DownREIT is similar, but the Partnership behind the DownREIT only owns **new Assets** they acquired rather than all existing Assets as well. And the management team cannot own OP Units, which prevents conflicts of interest.

None of this affects modeling and valuation work too much – you just have to make sure you add in the OP Units or DownREIT Units or whatever they're called when calculating the diluted share count (see the Accounting section for more).



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#### Property Development Questions & Answers

Property development is actually **simpler** than modeling normal companies, but you need to learn a lot of jargon before getting started.

Once again, the idea is "startup meets leveraged buyout" – you start with nothing, draw on Debt and Equity to construct the building, and then start realizing revenue and paying for operating expenses and property taxes once it's finished. Then, at the end, you sell the building and earn a return on your investment.

**Project Finance** is similar, so many of these questions apply to that as well – the terminology is a bit different, but the concepts are the same.

#### 1. How do you determine the total square meters or square feet in a building?

Property size is based on the size of the lot you acquire and what percentage the building can take up (the Maximum Allowable Lot Coverage). For example, if the lot size is 10,000 square meters and Allowable Lot Coverage is 80%, you can use 8,000 square meters for the building's footprint. This number is determined by local zoning requirements.

Then, to determine the total allowable square meters for the building you need to use the FAR (see below) and multiply that by the lot square meters. Then you can divide by the building footprint area to get the number of floors in the building, using a partial floor at the top in case it's not evenly divisible.

### 2. What is the FAR, and how does that impact the property size and other parameters?

FAR stands for **Floor Area Ratio** and tells you the maximum allowable square meters or square feet per square meter or square foot in the lot.

For example, if the lot is 10,000 square meters and the FAR is 10, your building can take up 100,000 square meters across all the floors.



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Based on the FAR, the lot size, and the ground floor footprint, you can determine the number of floors in the building and the total rentable area inside.

#### 3. What's the difference between Gross Area and Rentable Area?

Gross Area (or Gross Square Footage or Gross Square Meters) is how much space the entire building takes up, including walls, elevators, lobby areas, and so on.

Rentable Area is how much space can actually be rented out to tenants, so it excludes walls, elevators, lobbies, and anything else that cannot generate rental income.

Normally, you assume that the Rentable Area is a percentage of the Gross Area – values in the 70-90% range are common, depending on the building type. A higher percentage means that the income potential is higher.

### 4. How do you estimate a property's revenue? What are the main revenue categories?

For properties, the main revenue category is **rental income**. Here's how you calculate it for a few different building types:

- Offices / Retail / Industrial: \$ Per Square Foot or Square Meter
- **Apartments:** \$ Per Unit
- **Hotels:** Based on the Average Daily Rate (ADR), the total # of rooms, and the Occupancy Rate

For the first two property types, you can also earn income from **parking** and from other properties within the building (e.g. including a retail storefront on the first floor).

Hotels can earn income from a wider variety of sources, including parking, food & beverages, telecom services, hosted events, and more.



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Normally you look at the *Potential Rental Income* and then net that against a Vacancy Allowance – so if the potential income is \$10 million but there's a 5% vacancy rate, you would only earn \$9.5 million in actual rental income.

You determine the right numbers for everything above by speaking with other developers and looking at comparable buildings in the market.

5. You're looking at an apartment complex with 10,000 square meters of rentable space. You can rent each square meter for \$1000 per month, and the vacancy allowance is 5%. What's the property's annual revenue?

Potential Revenue = 10,000 \* \$1,000 \* 12 = \$120 million

5% Vacancy Allowance = \$6 million, so Annual Revenue = \$120 million – \$6 million = \$114 million.

6. What are the most important property-level expenses, and how do you calculate them?

The two most important categories are **Operating Expenses** and **Property Taxes**. Property Taxes are determined by local zoning regulations, and you calculate them based on the square feet or square meters of the property.

Operating Expenses are divided into categories such as energy and utilities, repairs and maintenance, insurance, and general & administrative (to pay for the staff, for example).

Normally you also link these to the square feet or square meters in the building, but with residential properties you might link them to the number of apartments or homes instead; for hotels you might link them to the number of rooms or make them a percentage of revenue.

7. Let's say the property I'm developing has an attached parking structure. How do you factor this into the model, and how do you determine revenue and expenses?



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If you're building a parking structure, you'll have to add the construction costs (Hard Costs, Soft Costs, and anything else that applies) to the **Total Development Costs** of your project (keep reading for more on this). So the parking structure will increase the amount of Debt and Equity you need at the beginning to finance everything.

You can estimate parking revenue by assuming a certain number of parking spots based on the size of the structure, a monthly contract rate, and then a daily parking rate, and then assuming that a certain % of the spots are sold on a monthly basis and a certain % are sold on a daily basis.

Normally you just assume a simple margin on the revenue. Then, as the construction phase of the project finishes you would scale in the revenue and expenses as tenants move into the building.

#### 8. Walk me through an office property's Income Statement.

Similar to an Income Statement for a normal company, you still start with **revenue** at the top, move down to **expenses** and finish up with **Net Income** at the bottom.

For revenue, you might see all the different income sources – for example, Office Tenants, Retail Tenants, and Parking – and these would be netted against a *Vacancy Allowance* that accounts for the fact that the building will never be 100% occupied.

The potential income less the Vacancy Allowance gives you the Total Revenue.

On the expense side, you would see Operating Expenses (sometimes split by category) and Property Taxes.

Total Revenue – Operating Expenses – Property Taxes = **Net Operating Income** (**NOI**)



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NOI is similar to EBITDA for normal companies since it excludes D&A, non-cash charges, corporate-level taxes, and interest.

Below the NOI line, you would see Interest Income / (Expense) and possibly Depreciation (more common if the building is already finished).

Net Income would be at the bottom, just like what you would see for a normal company.

Normally you don't see corporate-level taxes on a property's Income Statement – just Property Taxes.

9. Two analysts are looking at the same property and the same financial information, but one analyst says the Net Operating Income is \$10 million, and one says that it's \$9.5 million. Why is there a discrepancy?

Most likely, the discrepancy is because of **Maintenance Capital Expenditures** (**Maintenance CapEx**) – the annual cost required to maintain a building, replace parts that are wearing down, and so on.

Some people subtract this when calculating NOI, arguing that it represents a true cash cost to keep the building generating income at its current level. Other people exclude it on the argument that Capital Expenditures should not be reflected in NOI.

No one is "correct," but the \$9.5 million number is probably closer to the cash flow generated by the building.

There may be other discrepancies with NOI as well, so you have to dig in and ask how it was calculated.

10. What's the difference between Net Operating Income and Stabilized Net Operating Income? When do I use each one of them?



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With property development, you assume that buildings reach "stabilization" after a certain point – at this stage, the Vacancy Rate, revenue, and expenses are no longer changing, aside from inflation.

When you buy or sell properties, it's better to use the Stabilized Net Operating Income when describing a building because it represents the "steady-state" profit potential. If a property is under development or under renovation, the current NOI may be misleading because you're not factoring in the entire building.

You do still need to look at the Non-Stabilized NOI when you're modeling property developments, but generally when you're buying and selling properties both parties prefer to deal with the Stabilized NOI instead.

## 11. Do you think NOI accurately describes the cash flow that a property can generate? Why or why not?

Yes and no – it's better than Net Income since it excludes Depreciation, but it also excludes Interest and possibly CapEx, so it doesn't represent a property's true cash flow.

NOI tends to be more accurate for established properties where there's no Debt and where CapEx is minimal.

### 12. Walk me through the Construction Timeline – what are the key phases, and how long does each one last?

The Construction Timeline outlines tells you how many months it will take to plan the building, complete construction, and then get tenants to move in. The main phases:

- **Pre-Construction:** Acquire the land, hire architects, and plan the building.
- **Construction:** Construct the building and any attached structures such as parking garages.



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• **Post-Construction:** Pay for Furniture, Fixtures & Equipment (FF&E) and Tenant Improvements (TIs), market the property and get tenants, and sell the building.

How long each phase takes is difficult to generalize because it depends on the area, the size of the building, and the resources at your disposal, but generally the last two phases take more time than pre-construction.

So if the building takes 5 years to complete, Pre-Construction might take 1 year, and Construction and Post-Construction might take 2 years each.

## 13. How do you estimate the Total Development Costs? What are the main categories?

The main categories are **Land Acquisition Costs**; **Hard Costs** (materials and constructing the building); **Soft Costs** (design, accounting, legal, permits); **Furniture, Fixtures & Equipment (FF&E)**; and **Tenant Improvements (TIs)**.

Each category may have a fixed component and then a variable portion that depends on the size of the building – the variable portion may be linked to the lot square footage (e.g. for land acquisition), the gross square footage, or the rentable square footage.

FF&E and TIs are similar, but TIs are **custom to individual tenants** – for example, if one tenant wants a special type of desk or a different setup from other offices, that would count as a Tenant Improvement.

## 14. Let's look at the Total Development Costs in relation to the Construction Timeline. When do you pay for each expense category?

- Land Acquisition Costs: Pre-Construction (straight-line)
- **Hard Costs:** Construction (straight-line or bell curve distribution)
- **Soft Costs:** Distributed throughout all phases no clear pattern
- **FF&E:** Post-Construction (right before tenants move in)
- **TIs:** Post-Construction (right before tenants move in)



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### 15. What's the Loan-to-Cost (LTC) ratio, and how do you pick the proper values to use?

The Loan-to-Cost ratio tells you how much Debt vs. Equity you're using to finance the development. For example, if the Total Development Costs are \$100 million and the LTC ratio is 80%, you would use \$80 million of Debt and \$20 million of Equity.

You look at comparable property developments and speak with banks and lenders to determine an appropriate value.

### 16. A property development proposal you're looking at has a Loan-to-Cost (LTC) Ratio of 70%. Is that too high?

You can't tell based on just this information – you also need to know:

• The ratios of similar property developments in the area

### 17. What are the different types of Debt and Equity you might see for a real estate development?

- **Developer Equity:** This is cash that the developer itself puts down to finance the property, in exchange for a % ownership.
- **3**<sup>rd</sup> **Party Investor Equity:** This is cash that outside investors put down to finance the property, in exchange for a % ownership.
- **Mezzanine:** This is a riskier type of Debt with higher interest rates than senior notes; it's in between Equity and senior notes in the capital structure.
- **Senior Notes:** This is a less risky type of Debt than mezzanine, with lower interest rates; it may also be secured by collateral (the building).

You may see variations of these as well – for example, you might have different groups of Equity investors or you might have several tranches of senior notes.



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#### 18. Why might interest be capitalized for real estate development loans?

In the beginning, there's no cash flow from the property to cover the initial interest payments – so they are capitalized and added to the initial funds you borrow to pay for the project.

19. Why do you see multiple different types of Equity in real estate development? In a leveraged buyout normally it's just the PE firm's equity contribution.

This happens because **the developer doesn't have enough cash** to fund everything by itself. Unlike an LBO where the PE firm is buying a company that's already operational and has cash flows, in real estate development the "company" doesn't exist yet and has no cash flows at first.

That means that more financing is required, and that 3<sup>rd</sup> party investors will have to contribute Equity as well.

It's similar to how a startup works – the Founders might contribute their own cash at first, but past a certain point they need to raise venture capital from outside investors to fund the company.

20. Let's say that I've distributed all my development costs properly over 5 years. How do I determine when to draw on Equity and when to draw on Debt to fund the development?

You always start by drawing on Developer Equity first, until it's exhausted and you can no longer draw on any; then you move to 3<sup>rd</sup> Party Investor Equity until that's exhausted, and then to Mezzanine and finally the Senior Notes.

Normally in real estate development, you work backwards and calculate the Total Development Cost first, and then use that to calculate the amount of funding required – so you never run into a scenario where you "run out" of funds completely.



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That also creates a circular reference in models, but it's commonplace in real estate.

# 21. Wait a second – normally in an LBO model, we draw on all the Debt and Equity to buy the company in the beginning. Why do you draw on them gradually over each month / year in a real estate development?

There's no point doing this in real estate development because you don't need all the funds at once – buildings cost something to develop over time, so you can boost your returns by delaying the Equity and Debt draws further into the future rather than drawing on everything in the beginning.

### 22. I've finished modeling the property and want to calculate the IRR now – how do you determine the net sale proceeds at the end?

You calculate the annual, stabilized NOI (see the question above on stabilized NOI), and then subtract Maintenance CapEx from that number, also possibly adjusting for inflation (more meaningful if it takes many years to sell).

Then, you assume a Cap Rate and use that to determine the price you get – if the stabilized NOI is \$10 million and the Cap Rate is 5%, the price is \$10 million / 5%, or \$200 million.

Next, you subtract out the Selling Fees (% of the Sale Price) and the repayment of outstanding Debt to get the net sale proceeds – it's very similar to an LBO model.

## 23. That seems very arbitrary. How can you tell whether the Cap Rate is too low or too high? Isn't there a better way to do the analysis?

It is very arbitrary, but Cap Rates are the universal method in real estate – just like you always use EBITDA Exit Multiples for LBOs of normal companies.

There are many flaws with Cap Rates – discrepancies in how NOI is calculated, lack of data in certain geographies (Manhattan is easy, but Middle-of-Nowhere-



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Town-in-Saskatchewan is not), and inability to know how the median rates will change over time.

All you can do is look at a **sensitivity table** and calculate how the IRR changes at different purchase prices and selling prices, just as in an LBO model.

### 24. What is a Developer Promote, and why might the 3<sup>rd</sup> Party Investors *want* to use them and give up some of their returns in the process?

Let's say that the Developer owns 10% of a property and the 3<sup>rd</sup> Party Investor owns 90%. Therefore, the Developer would get 10% of the returns and the 3<sup>rd</sup> Party Investor would get 90% of the returns.

With a **Developer Promote**, the Developer might get *more than* 10% of the returns if the IRR hits a certain threshold.

So maybe up to a 10% IRR, the Developer just gets 10%. But then if the IRR is above 10%, the Developer gets 15% of any returns between 10% and 15%, and then 20% of any returns above 15%.

The net effect is that the Developer may earn more than the 10% he was originally entitled to if the property development goes well and they achieve a high IRR.

It's similar to how federal taxes work in many countries: you pay a certain percentage up to a certain income level, then an increased percentage up to another income level, and so on.

A 3<sup>rd</sup> Party Investor would agree to this to **incentivize the Developer to perform well** – when all is said and done, they are not really giving up that much since they often own 90%+.

By giving up a small chunk of their returns, they can get the Developer to finish construction more quickly and therefore make the project more successful for everyone.



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### 25. How would you calculate Developer Promotes and allocate investor returns?

This is almost impossible to explain in words, but you have to keep track of the amount of Equity invested so far, and then calculate what the investors would need to earn on that capital to hit a certain IRR.

Then, you subtract that from the amount of capital they actually have earned and allocate that depending on the ownership percentages and developer promotes before moving to the next tier.

Here's a quick example: let's say that the Developer and 3<sup>rd</sup> Party Investor invested \$20 million altogether and earn back \$40 million in 5 years when the building is sold, which is around a 15% IRR.

If they had only earned back \$32 million, that would be around a 10% IRR.

So if the Developer owns 10% and the  $3^{rd}$  Party Investor owns 90%, that \$32 million would be divided and the Developer would get 10%, or \$3.2 million, and the  $3^{rd}$  Party Investor would get 90%, or \$28.8 million.

Now there's \$8 million left to allocate. Between 10% and 15% IRR, the Developer gets 15%, so they get 15% of that \$8 million, or \$1.2 million, and the  $3^{rd}$  Party Investor gets 85%, or \$6.8 million.

So the end result is that the Developer earns a 17% IRR rather than a 15% IRR, and the 3<sup>rd</sup> Party Investor still gets nearly a 15% IRR, lower by only around 0.2%.

This whole structure is called the "waterfall" and it applies to any situation where the returns allocated to each Equity investor differ at different IRR levels.

## 26. Could you ever get a high IRR in real estate development without selling the property?



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No – just think about the numbers for a second. Properties typically have yields of 5-10%. So even if you pay for the development 100% in cash, you only get back 5-10% **per year**, and it might therefore take 10-20 years to get your initial investment back.

Roughly speaking, you need to double your money in 5 years to get a 20% IRR. So if it takes you 20-40 years to double your money (or even 10-15 years), you'll never get the 20%+ return that Equity investors are looking for.

## 27. Could you use a DCF to value a property? Why not do that rather than using Cap Rates?

You could, but it is not taken too seriously in real estate and pretty much everyone uses Cap Rates; often the DCF is just used to cross-check your assumptions.

The DCF for real estate has the same problems that it does for normal companies – too much reliance on future assumptions, difficulty in picking the correct Terminal Value, and one added problem: the Discount Rate is more difficult to determine since you can't use WACC and CAPM to calculate it.

Mechanically, it's the same as a DCF for a normal company but you'll have to estimate certain numbers (i.e. the Discount Rate) based on comparable properties or market standards rather than calculating them.

### 28. Walk me through how the Replacement Cost (AKA Replacement Value) method works.

You would start by calculating the Asking Price per Square Foot or Square Meter for a property you're considering buying – let's say the asking price is \$100 million and it has 100,000 square feet, so it's \$1,000 / square foot.

Then, you would call a developer or someone else in the market to look at the property and estimate how much it would cost to **build it yourself** – the Land Acquisition Costs, Hard Costs, Soft Costs, and so on.



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Let's say you call several developers and they estimate that they could construct it for \$95 million, which comes to \$950 / square foot.

In this case, the asking price is above the **Replacement Cost** so you're buying the building at a premium.

That's not necessarily "bad," but it might mean the building is overvalued – or it might just mean it's a normal market price if everything else in the area also sells at a premium to the Replacement Cost.

### 29. What are the advantages and disadvantages of the Replacement Cost method?

The advantage is that it's grounded in fundamental construction costs as opposed to the prevailing Cap Rates in the market – so it's also less subject to fluctuations in the real estate prices.

The disadvantage is that determining accurate values is close to impossible – ask 10 different developers and they'll give you 10 different answers. Especially for large and complex properties, estimates vary widely and are still highly dependent on assumptions.

So the Replacement Cost method is used more as a sanity check for the values implied by Cap Rates and other methods rather than as a strict valuation methodology.



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#### Properties – Industry-Specific Questions & Answers

The previous section detailed what to expect for general real estate development questions.

Here, we'll go into more detail on specific segments such as hotels and offices, and look at more granular details such as different lease types and scenarios such as renovations and acquisitions.

Unless you have previous experience in real estate, these questions are not likely to come up in interviews – but we're publishing them anyway just in case you are more experienced.

### 1. How is a hotel's Income Statement different from that of an office or retail complex?

A hotel's Income Statement looks much more like a normal company's Income Statement:

- **Revenue:** There are categories of revenue such as Rooms, Food & Beverage, Telecom & Other, and Parking.
- **Cost of Sales & Labor and Gross Profit:** You include the costs directly associated with all those revenue categories here.
- Operating Expenses: G&A, S&M, Energy, Insurance, Property Taxes, Maintenance, Management Fees...
- There may be a **Management Incentive** if NOI hits a certain target.

You may also go down below NOI on the Income Statement and list Depreciation and Net Interest Expense as well, which gets you to Net Income.

#### 2. How do you calculate revenue for a hotel, and what is RevPAR?

It's based on the # of rooms, the Occupancy Rate, and the Average Daily Rate (ADR).



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Revenue = # of Rooms \* Days in Year \* Occupancy Rate \* Average Daily Rate

RevPAR means "Revenue Per Available Room" and you calculate it by multiplying the Occupancy Rate by the Average Daily Rate (ADR); it tells you how much revenue each room actually results in each night.

### 3. The vacancy rate for a hotel is 25% and the Average Daily Rate (ADR) is \$500. What is its RevPAR?

RevPAR = Occupancy Rate \* ADR

In this case, they've given us the *Vacancy Rate*, which is the opposite of the Occupancy Rate. So the Occupancy Rate would be 1 - 25%, or 75%.

RevPAR = 75% \* \$500 = \$375

#### 4. How are RevPAR and RevPOR related?

RevPOR is a related metric: Revenue Per Occupied Room. It is basically just the Average Daily Rate (ADR) of the hotel. So RevPAR = RevPOR \* Occupancy Rate.

### 5. Do you think RevPAR and RevPOR are useful metrics? What are their flaws?

They're useful at a high-level to see how much potential revenue each room in a hotel has... but the problem is that they **exclude other sources of revenue**, such as Food & Beverages, Parking, Events, Telecom, and so on.

For a hotel these other revenue sources could be very significant, so it's a big deal that RevPAR and RevPOR both exclude them – they effectively understate the revenue potential.

### 6. Let's say I want to acquire and renovate a hotel – how do I determine the appropriate purchase price?



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The same as with any other type of real estate: the going Cap Rates for similar properties in the region.

### 7. And then how would I model the renovation period? What are the key assumptions to make there?

You generally assume a number of years / months that the renovation lasts, the % of rooms that will be unavailable, and then how much you can actually improve the ADR and Occupancy Rate by as a result of the renovation.

Then, during the renovation period itself, you assume no revenue from the rooms that are under renovation, and after the period ends you assume the higher ADR and Occupancy Rate for those rooms, which will result in higher revenue.

### 8. With the renovation period in place, I now have a *lower* IRR. How is that possible? Shouldn't a renovation always boost returns?

Not necessarily. If the renovation doesn't boost the ADR and/or Occupancy Rate by enough (i.e. it doesn't make the hotel much more attractive to potential customers), the IRR could easily fall. Just like everything else in finance, it's all a matter of tweaking the numbers and seeing what works.

Sometimes the numbers make a renovation make sense, and sometimes the cost of the renovation is prohibitively high for the improvements that it gets you.

## 9. What's attractive about a hotel's business model compared to an office or apartment's business model? What's not so attractive?

A few things make it attractive: for one, there are many ancillary sources of revenue, more so than what you would see for an apartment or office complex. Also, hotels themselves can build up "brand names" (e.g. the Ritz Carlton) and command premium prices more than other properties.



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The major downside to hotels is that **revenue is far less predictable** because most customers are short-term and there are no multi-year leases. Hotels also tend to be affected much more severely by economic downturns.

## 10. Do you think a hotel would be valued at a higher or lower Cap Rate than an apartment complex?

Generally, hotels will be valued at **higher Cap Rates**, meaning they're *less* valuable, and apartment and office complexes will be valued at lower Cap Rates.

That happens because revenue is much more stable and predictable with offices and apartments since they use 1-year or multi-year leases.

Yes, some hotels make a lot of money and are very profitable, but on the whole they are also more susceptible to economic downturns and client turnover.

# 11. If I'm modeling an apartment or other multi-family development, how is it different from what you might do for an office or retail complex?

Typically you would base all the calculations on the **Number of Units** in the complex rather than the square feet or square meters. For example, you might link rent, operating expenses, and even the required parking units to the units in the complex rather than the size.

Also, there may be differences in terms of cash collection because many apartment complexes require an **upfront deposit** from tenants, which gets returned at the end of the lease. So you may have to take that into account in the model as well.

# 12. How is a Single Net Lease (N) different from a Double Net Lease (NN) or Triple Net Lease (NNN)?

Here's a chart that shows you how these leases differ from each other:



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| Lease<br>Type:      | Abbreviation | Tenant Pays                            | Implications in Model                                |
|---------------------|--------------|--|--|
| Single Net<br>Lease | N            | Rent + Property<br>Taxes.              | Lower Rent, but you only include OpEx to compensate. |
| Double<br>Net Lease | NN           | Rent + Property Taxes + Insurance.     | Even lower Rent and OpEx is further reduced.         |
|                     | NNN          | Rent + Property<br>Taxes + Insurance + | The lowest Rent values, but you also have no         |
| Triple Net          |              | Maintenance.                           | OpEx and no Property                                 |
| Lease               |              |  | Taxes. Therefore, Net                                |
|                     |              |  | Rental Income = Net                                  |
|                     |              |  | Operating Income.                                    |

#### 13. Which lease types are the most common for different properties?

Triple Net Leases (NNN) are the most common in office and retail complexes – for residential property it's highly unusual for the tenant to pay for anything aside from rent and some utilities. That describes a **Gross Lease** (not shown on the chart above, but basically the tenant just pays Rent).

# 14. I'm looking at an acquisition of an office complex with NNN leases, and the press release only gives the approximate rental income. How can I estimate the Net Operating Income based on its rental income?

Trick question: for Triple Net Leases, Net Rental Income **is the same as** Net Operating Income, so that number in the press release also describes the property's NOI. If the tenant pays for both operating expenses and property taxes, you have nothing major to pay for yourself.

## 15. What's different when you're analyzing healthcare properties such as hospitals?



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Similar to apartments, normally you look at everything on a **per-bed** basis and think about revenue and expenses in terms of the number of beds, patients, occupied beds, and so on.



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#### Properties to REITs – Questions & Answers

Individual properties and REITs are intimately linked, but hardly anyone explains *how* they're actually linked.

And if you want to understand one or the other, you'll need to understand **both**: many properties are owned by REITs, and when you analyze a REIT you're really analyzing its underlying properties.

These questions are not terribly likely to come up in interviews, but they will make it easier to answer related questions on one or the other.

### 1. How do you calculate Same-Store Rental Revenue and NOI in a roll-up model for a REIT?

Usually you would assume a **rental income growth rate** and an **NOI margin** for Same-Store Properties – they do not change by much, so you usually assume that rent can be raised by a certain percentage each year, and that margins will stay in the same range.

You could still use a Cap Rate instead, but it's often easier to think of revenue and NOI using the variables above since the Assets are not changing much in this segment.

### 2. How can you estimate Rental Revenue and NOI from Development / Redevelopment and Acquired Properties?

You assume a Cap Rate and NOI margin for each of these segments, assume a certain amount of spending each year on these segments, and then track the total Assets in each segment over time. Over the years, you may also **re-classify** some of these Assets to the Same-Store segment as they become "stabilized."

You need to track the Assets rather than just revenue and NOI because the Assets in these categories are **changing** frequently, and everything is determined by your effective yield on those Assets.



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### 3. How can you move from the value of disposed properties to the Discontinued Operations section on a REIT's financial statements?

You have to make a few assumptions first:

- The **Net Proceeds** from the sale of these disposed properties.
- The Gain / (Loss) on the sale of both land and Real Estate Assets associated with these properties (estimate as a % of Net Sale Proceeds).
- The **Book Value** (what's on the Balance Sheet) of these disposed properties.
- The Rental Income, Operating Expenses, Property Taxes, Interest, and Depreciation associated with these disposed properties (you can use Cap Rate and NOI margin assumptions for some of these).

Using all these, you can calculate **Income from Discontinued Operations**: Rental Income – Operating Expenses – Property Taxes – Interest – Depreciation.

On the Income Statement, Income from Discontinued Operations and Gains / (Losses) on the Sale of **Real Estate Assets** (Buildings and FF&E, but NOT Land) show up in the "Discontinued Operations" section.

#### 4. How do you calculate NOI for the entire REIT on its Income Statement?

You add up the Rental Income and Operating Expenses and Property Taxes for Same-Store Properties, Development & Redevelopment Properties, and Acquired Properties, and then *subtract* Rental Income and Expenses from Dispositions (since those are reflected under Discontinued Operations on the IS now).

**NOTE:** If you've been tracking the Assets properly for all these segments and assuming that Disposed Properties directly reduce the Assets for one or more segments, you may not need to subtract Rental Income and Expenses from Dispositions; the Asset reduction already accounts for that.

#### 5. How do property-level changes impact a REIT's Balance Sheet?



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There are a couple steps to go through:

- First, you must add all **Net Real Estate Additions** to Land, Buildings, and FF&E on the REIT's Balance Sheet.
- Second, you must subtract Depreciation from both Continuing and Discontinued Operations from the **Accumulated Depreciation** number.
- Third, you have to take into account changes to items like Construction in Progress, Land Held for Development, and Real Estate Assets Held for Sale.

What about Gains / (Losses) on Disposed Properties? As long as you've adjusted for those on the Cash Flow Statement and shown the *Total* Proceeds under CFI, and you've subtracted the *Book Value* of Disposed Assets on the Balance Sheet, they're taken care of.



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### REIT Accounting & 3-Statement Model Questions & Answers

These questions are all more advanced than anything in the "High-Level" section.

REIT accounting is not tremendously difficult, but there are quite a few points to be aware of, especially if you have some experience with real estate or you're interviewing with a group that's known to be tough with technical questions.

#### 1. How does a REIT's capital structure differ from a normal company's?

Most of these differences come from the fact that REITs must issue 90% of their taxable income as Dividends. As a result of that, they have little cash available to finance their operations:

- They are **much more highly leveraged** than normal companies; it's not uncommon for Debt to comprise half or more of a REIT's Equity value.
- They frequently issue Debt and Equity simply to continue acquiring, developing, and renovating properties.
- In addition, Noncontrolling Interests, Equity Interests, and Joint Ventures
  are extremely common because of capital constraints; REITs often join
  forces to accomplish their goals.

### 2. What are some of the major differences in a REIT's 3 financial statements as a result of its special requirements?

We went over some of these in the Overview section at the top of this guide – more detail now:

• Income Statement: Revenue is primarily rental income; Expenses are split into property-level costs and corporate overhead; Net Interest Expense and Depreciation are extremely high; Discontinued Operations, Earnings in Equity Interests, Earnings Attributable to Noncontrolling Interests, Gains / (Losses) on Asset Sales, and Impairment Charges are all common.



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- **Balance Sheet:** 75% of Assets must be real estate-related; Real Estate Assets split into Operating Real Estate vs. Other Real Estate vs. Accumulated Depreciation; high Debt balances and negative Retained Earnings are common.
- Cash Flow Statement: The overall structure is similar to normal companies, but it can be "messier" due to all the different Assets and segments they have; CapEx is split into Maintenance CapEx vs. Growth CapEx (i.e. acquiring or developing new properties); there are high Dividends and Debt and Equity issuances.

### 3. Why are Joint Ventures, Equity Interests, and Noncontrolling interests so common for REITs?

Property development and acquisitions are capital-intensive, but REITs have very little cash on hand (due to the Dividend requirement) – so they often partner with other REITs or real estate developers to ease the burden on themselves.

### 4. What are Redeemable Noncontrolling Interests? How do they flow through the statements?

These refer to "OP Units" (Operating Partnership Units), which relate to the UPREIT vs. DownREIT structure. These represent the option to purchase the *remaining* interest in those structures – so if REIT management owns 90% of these OP Units, the Redeemable Noncontrolling Interests might represent the right to purchase the remaining 10%.

On the statements, you subtract **redemptions** (the REIT has spent money to acquire these units) in Cash Flow from Financing, and also subtract the redemptions from the Redeemable Noncontrolling Interests line item on the Liabilities side each year.

You should either 1) Assume **share dilution** from the OP Units or 2) Add the Redeemable Noncontrolling Interests and count them as Debt when calculating



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Enterprise Value, but not both – it's similar to the treatment for Convertible Bonds.

5. Let's say that a REIT disposes of an Asset for \$100. Its Book Value was \$80, the revenue generated by the Asset was \$8, the NOI generated by the Asset was \$4, and Depreciation was \$2.

How does this sale flow through the statements? Assume no Gain or Loss on the sale of land, only on the building itself.

Asset sale net proceeds are \$100, and the Gain on the sale of the Assets is \$20. Rental income is \$8, and operating expenses and property taxes are \$4 and Depreciation was \$2, so Income from Discontinued Operations on the Income Statement is \$2.

Additionally, there is a Gain of \$20, so Net Income at the bottom is up by \$22 (remember – no corporate taxes for a REIT!).

On the CFS, Net Income is up by \$22, but we must subtract the Gain of \$20 because it is already accounted for under CFI, so CFO is up by \$2. Under Cash Flow from Investing, we record the \$100 sale of Assets, so cash flow is up by \$102 and cash is up by \$102 at the bottom.

On the BS, cash is up by \$102 but Gross Real Estate Assets are down by \$80, so overall the Assets side is up by \$22. The other side is also up by \$22 because Net Income was \$22 higher, so both sides balance.

6. What's the purpose of Construction in Progress, Land Held for Development, and Real Estate Assets Held for Sale on the Balance Sheet?

These are for land and buildings that are currently being developed and therefore don't generate revenue or NOI; Real Estate Assets Held for Sale may actually generate NOI and revenue, abut typically they're small and since they're about to be sold, you often assume that they do not.



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These Assets are listed as separate items because Gross Real Estate Operating Assets all generate revenue and NOI, whereas these Assets generate no revenue or NOI, or at most, minimal revenue and NOI.

7. Walk me through how \$10 of Earnings Attributable to Noncontrolling Interests flows through the 3 statements. Assume that the statements have ALREADY been consolidated, and that we only need to record these Earnings.

You subtract it on the IS because it's not attributable to the company, so Net Income is \$10 lower. On the CFS, you add it back in the CFO section because if you own over 50% of a company, you do receive those earnings in cash. So cash flow and cash at the bottom are unchanged.

On the BS, there are no changes to the Assets side. On the other side, Noncontrolling Interests under Shareholders' Equity is up by \$10 due to these earnings, but Retained Earnings is down by \$10 because Net Income was \$10 lower, so the Balance Sheet balances.

8. Walk me through how \$10 of Earnings Attributable to Equity Interests flows through the 3 statements. Assume that nothing from these Equity Interests has been reflected on the statements yet.

Since you haven't already reflected these earnings on the statements, you would ADD them at the bottom of the Income Statement, so Net Income is \$10 higher.

But in the CFO section of the Cash Flow Statement, you subtract them out because you don't receive the earnings in cash when you own < 50% of a company, so cash flow and cash at the bottom are unchanged.

On the BS, the "Investments in Equity Interest" line item on the Assets side is \$10 higher from this income, and on the other side Retained Earnings is \$10 higher because Net Income was \$10 higher, so both sides balance.



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9. For which type of REIT would you MOST likely see an adjustment for the straight-lining of rent on the Cash Flow Statement: office REITs, apartment REITs, or hotel REITs?

Office REITs, because tenants often sign multi-year leases. When that happens, you may "straight-line" the rent and assume that, for example, \$5,000 of owed rent is paid evenly over 5 years. But in reality, rather than getting \$1,000 in each year you may receive \$800 in year 1, \$900 in year 2, \$1,000 in year 3, \$1,100 in year 4, and \$1,200 in year 5 as the rent escalates each year.

So you will overestimate cash flow, FFO, and AFFO in early years and underestimate it in later years, which is why the straight-line adjustment for rent will be a negative in early years and a positive in later years. You don't see this as much for apartment REITs since leases are usually 1 year or less, and you don't see it at all for hotel REITs since hotel stays are even shorter-term.



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#### REIT Valuation Questions & Answers

You're most likely to get questions on REIT-specific metrics such as FFO and AFFO and REIT-specific methodologies such as the Net Asset Value (NAV) model here.

You don't necessarily need to know all the nuances, but you should be familiar with the trade-offs of these metrics and methodologies, as well as why we use them when analyzing REITs.

**NOTE:** We've already covered some of the most important points on Valuation in the "High-Level" section at the top of this guide. So we are going to skip over the basic definitions of FFO and AFFO here and focus on more advanced topics.

#### 1. Why is Funds from Operations (FFO) superior to Free Cash Flow for REITs?

Trick question. FFO should not be compared to Free Cash Flow because they're measuring different things – FFO is intended to be a replacement for **Net Income** for REITs, and is not necessarily close to the REIT's true cash flow.

Remember that the massive Depreciation charges as well as Gains and Losses create a misleading Net Income number, and that is what you are adjusting for when calculating Funds from Operations.

#### 2. What are the advantages of AFFO over FFO? What are the disadvantages?

The main advantage of AFFO is that it's closer to the company's true "cash flow" because it reflects the impact of Maintenance CapEx. Many analysts believe that AFFO more accurately represents how much cash flow a REIT generates on a recurring basis.



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The main disadvantage is that definitions for AFFO tend to be inconsistent, and different REITs may include very different items in the AFFO number. So you really have to scrutinize the AFFO number closely when you see it listed in a company's filings.

Another disadvantage is that AFFO still does not *truly* represent recurring cash flow, because it excludes CapEx related to acquisitions, development/redevelopment, and dispositions.

You could argue that those are "optional," but the revenue and NOI from them are real – so is it really accurate to leave them out altogether?

# 3. Consider the 3 following companies: a hotel REIT, a residential REIT, and an office REIT. For which one would you most likely see the GREATEST difference between AFFO and AFFRO?

The office REIT, because multi-year leases with office properties create differences between cash rental income and rental income recognized on the financial statements. Remember that AFFRO includes that straight-lining of rent adjustment.

# 4. Do you think a hotel REIT or an office REIT would trade at a higher FFO multiple?

As usual, many factors come into play, such as geography, clientele, property margins, and so on.

But generally, office REITs have superior business models because clients sign multi-year leases in advance, which locks in recurring, predictable revenue for years to come, so they are valued more highly.

Remember that higher valuation = higher FFO or AFFO multiple, but lower Cap Rate.



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# 5. REITs are Balance Sheet-centric – can't we therefore use Book Value and P / BV multiples to value them?

No, because Accumulated Depreciation is massive for REITs and it makes Book Value not as meaningful. Also, the fair market values of Real Estate Assets may be significantly higher or lower than the Balance Sheet values because Real Estate Assets are recorded at historical cost.

Book Value is meaningful for commercial banks because their Balance Sheets are **marked-to-market** and because they have minimal Depreciation.

### 6. Why do Discounted Cash Flow (DCF) and Dividend Discount Models (DDM) often produce similar valuation ranges for REITs?

First off, note that this statement is *only* true if you're referring to a Levered DCF analysis, i.e. you take into account Interest Expense and Mandatory Debt Repayments when calculating Free Cash Flow (effectively making it Free Cash Flow to Equity).

This happens because the Dividends issued by a REIT are usually very close to its "Free Cash Flow" – after all, the REIT is required to pay out most of its taxable income in the form of Dividends... which means that it's also giving up much of its cash flow in the form of Dividends.

### 7. What are the advantages of a Net Asset Value (NAV) model over a DCF or DDM for a REIT? What are the disadvantages?

The main advantage is that it's not as dependent on far-in-the-future predictions; it's grounded in what's on the REIT's Balance Sheet.

The disadvantage is that assigning Cap Rates is very, very difficult and can be close to impossible to do accurately if you don't have good data.



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Just like using FFO or AFFO multiples to value a REIT, the NAV model is very dependent on the data you have available... but unlike with FFO or AFFO multiples, this data is much more difficult to locate.

#### 8. Walk me through a NAV calculation for a REIT.

You can divide it into a 4-step process:

- 1. In **Step 1**, you assign and apply a Cap Rate to each segment of the REIT's 12-month forward NOI. For example, you could apply a different Cap Rate to NOI from 100% Owned Properties, JV Properties, and Management Fees. Then you add up all these values and the total represents the value of the REIT's **Gross Real Estate Operating Assets**.
- 2. In **Step 2**, you add up all the other Assets of the REIT, adjusting them where necessary; you might, for example, assume a slight premium for Construction in Progress if it will start contributing revenue soon.
- 3. In **Step3**, you adjust and subtract the REIT's Liabilities. You rarely make too many major adjustments here unless the fair market value of Debt is significantly different from its Book Value.
- 4. In **Step 4**, you subtracted the Adjusted Liability Value from the Adjusted Asset Value to get the Net Asset Value of the REIT. Then you can divide that by the shares outstanding to get NAV Per Share, which you can compare to its current stock price.

The underlying idea with the NAV model is that **local**, **private markets are often** more efficient and move more quickly with real estate.

So if prevailing Cap Rates suddenly rise or fall, you'll see that right away with sales of individual properties, but the share price of the REIT itself may lag that movement, which results in a premium or discount to the NAV Per Share.

The analysis itself is not complicated – the trickiest part is **picking the right Cap Rates** and also dividing NOI into the right segments in the first place.



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9. Let's say that a REIT has NOI from non-rental-income sources such as property management fees. Would you value that NOI at a higher lower Cap Rate (Yield) than its normal rental NOI?

You generally use a **higher Cap Rate** for these non-rental-income sources, meaning that they are less highly valued. The rationale is that this type of revenue is easily cancellable and is not as stable or predictable as rental income from 1-year or multi-year leases.

10. Let's say that the implied Cap Rate of a REIT (based on the assumption that Equity Value = Assets – Liabilities and working backward to get the implied Gross Real Estate Operating Asset Value) is higher than its actual Cap Rate (based on the Balance Sheet value of Gross Real Estate Operating Assets). What does that mean?

It means that the REIT is trading at a higher value than what its properties are worth according to its Balance Sheet – usually there is some reason for that, such as better-than-average earnings growth, more predictable revenue, a more appealing geography or tenant base than other REITs, and so on.

### 11. Why would one REIT have a higher NAV Per Share than a similar REIT in the same geography?

There could be many reasons – you have to look at their revenue, FFO, and AFFO growth rates and margins, and also factors like the dividend payout ratio and dividend yields.

The tenant base may be very different for the two REITs, and they may focus on different property types even if they're in the same geography. Some property types also tend to be more highly valued than others.

All of those could make a difference when using the Net Asset Value model. There is rarely a simple answer for valuation differences unless it really is something blindingly obvious (e.g. one REIT is growing at 20% and the other is growing at 1%).



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### 12. How would you select a set of public comps or precedent transactions when valuing a REIT?

Rather than selecting the set based on metrics like revenue or EBITDA, you would select them based on Real Estate Assets, NOI, FFO, AFFO, or something else real estate-specific.

Geographical focus is also important, as are the property types; it wouldn't make much sense to compare a UK healthcare REIT to an office REIT on the west coast of the US.

### 13. What are the most common add-backs when calculating FFO and AFFO for REITs?

You don't have to worry about these quite as much with REITs, because all REITs actually **list their FFO calculations explicitly** in their filings. But a few points:

- 1. You should use **Net Income to Common** as the starting point (i.e. make sure you subtract Preferred Stock Dividends before calculating FFO or AFFO).
- 2. In AFFO, you may see **adjustments** for Stock-Based Compensation, Amortization of Financing Fees, Impairment Charges, the Gain / (Loss) on the Sale of Land, and the Early Retirement of Debt. All of those are either non-cash or arguably non-recurring.

Additionally, there is some inconsistency in how companies treat Net Income Attributable to Noncontrolling Interests and Equity Interest Net Income – your best bet is to follow what the company does in its filings, and then apply similar treatment to the rest of the companies in your set of comps.

# 14. Would a REIT focused on offices in major metropolitan areas or one focused on offices in rural areas to have higher FFO and AFFO multiples and Cap Rates?



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The one with properties in major metropolitan areas – everything is more expensive in big cities, including properties. Cap Rates tend to be the lowest (meaning the most expensive properties) in places like Manhattan and tend to be higher (less expensive properties) in rural areas because there are fewer buyers, fewer transactions taking place, and lower potential revenue from the properties.